



United States Naval Test Pilot School



The mission of TPS: “Serve the Fleet”



Test Squadrons (Patuxent, Army, USAF, Foreign)

Pilots, NFO's, FTE's and Short Course Graduates



U.S. Naval Test Pilot
School

R&D UNIVERSITY OF FLIGHT
TEST SQUADRON



History

- Established 1945
- 10 Week Program
Evolved to 5 1/2
Months, Later 8 Months



- Syllabus Evolution
 - Rotary Wing 1961
 - 11 Months 1973
 - Airborne 1975



History--Schoolhouse



Constructed 1993

- Classrooms, Labs (Lower Deck)
- Student/Staff Offices (Upper Deck)



TPS Students





Student Profile-- Navy



- 6-Year Navy Lieutenant
- 1,000+ Flight Hours
- Two Operational Deployments
- Engineering/Science Degree





Student Sources



Per Class

Navy (direct)	12
Navy (COOP)	5
USMC	4/
USA	4/5
USAF	1
International	2
ETPS exchange	1(Annual)
EPNER exchange	1 (Every 3 years)
Engineer (GS)	7
Total	36



A diverse, energetic group!



Selection Process

- Based on RDT&E/Program Requirements
- Military Boards
 - Flight
 - Professional
 - Academic
- Engineers
 - Experience
 - Performance
 - Flight suitabilit





Class Composition



Pilots NFO's

Engineers

Fixed Wing (14)	12	2	
Rotary Wing (13)	11	2	
Airborne Systems (9)	<u>6</u>	<u>3</u>	-
-----	23	6	9
TOTAL = 36		7	



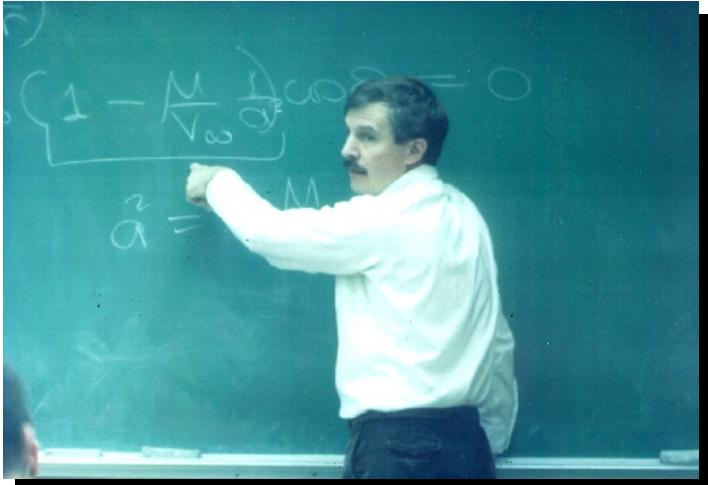
INTERNATIONAL STUDENTS



- 
- A large, semi-transparent watermark-style illustration of an eagle with its wings spread wide. It is holding a shield with various symbols, including a propeller and stars. The eagle is positioned behind the text columns.
- CANADIAN FORCES
 - ROYAL NAVY
 - ROYAL NETHERLANDS AIR FORCE
 - ROYAL AUSTRALIAN AIR FORCE
 - JAPANESE MILITARY SELF-DEFENSE FORCE
 - ISRAELI AIR FORCE
 - FRENCH NAVY / FRENCH AIR FORCE
 - SWISS AIR FORCE
 - ROYAL AIR FORCE
 - ROYAL SWEDISH AIR FORCE
 - ROYAL NORWEGIAN AIR FORCE
 - ROYAL AUSTRALIAN NAVY
 - REPUBLIC OF SINGAPORE AIR FORCE
 - INDIAN NAVY
 - SPANISH AIR FORCE
 - ITALIAN AIR FORCE



Instructional Flow



- Classroom
- Lab
- Exercise Briefing
- Flight Demonstration
- Data Flights
- Technical Report
- Review/Debrief/Critique





Long Course--Current Program



- Two Classes Annual
- Three Syllabi
 - 550 Academic Hours
 - 100 Sorties/150 Flight Hours
 - 25 Technical Reports



Fixed and Rotary Wing Syllabus Overview



- Crew Station Analysis
- Aircraft Performance
- Flying Qualities





Airborne Systems Syllabus Overview



- Communications, Digital Systems
- Navigation
- Air-to-ground Radar
- Air-to-air Radar
- Electro-Optical
- Night Vision Goggles
- Airborne Weapons
- Flying Qualities and Performance





Final Exercise



- Developmental Testing Evaluation Phase IIA
- Combines all elements learned in curriculum
- Aircraft is new to the student (site may be too)
- 1 week to write test plan



Short Course Department

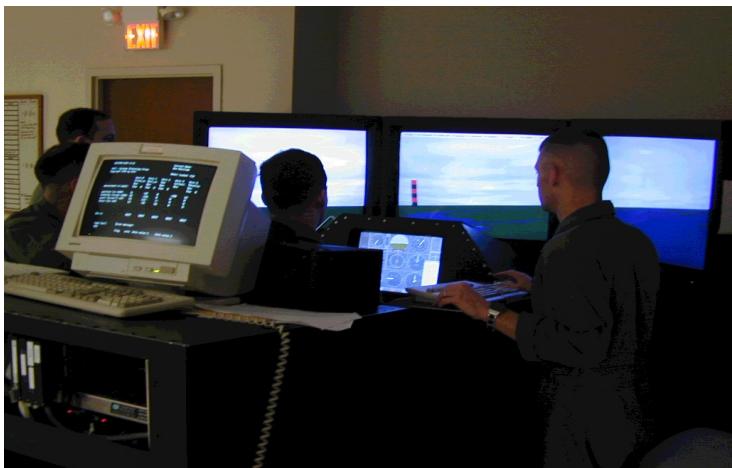


- Provide continuing education to TEAM engineers and aircrews on the disciplines of flight test...
- Staff
 - Two full-time instructors
- Partnering agreements provide access to industry and academic experts.
- ESDP to Journeyman Program
 - Introduction to flight test
 - Aircraft flying qualities
 - Airborne systems test and evaluation





ASSETS





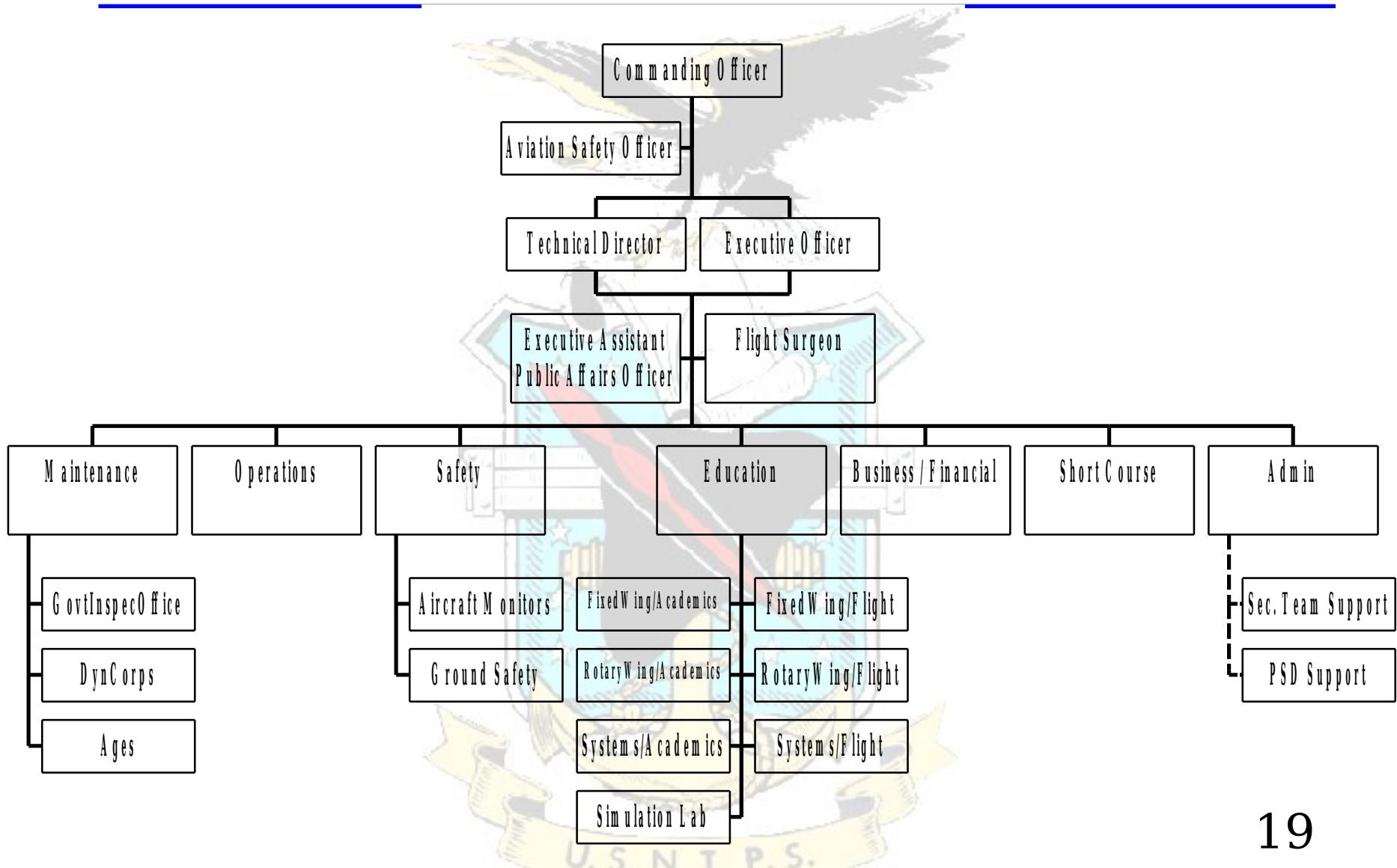
PEOPLE



- **72 students**
- **25 flight instructors**
 - USN, USMC, USA, USAF, civil service, contractor, and international exchange
- **9 civil service academic instructors**
 - Long-term
 - Unique talents and experience
 - National assets
- **30 support** 18
- **Budget** ADR



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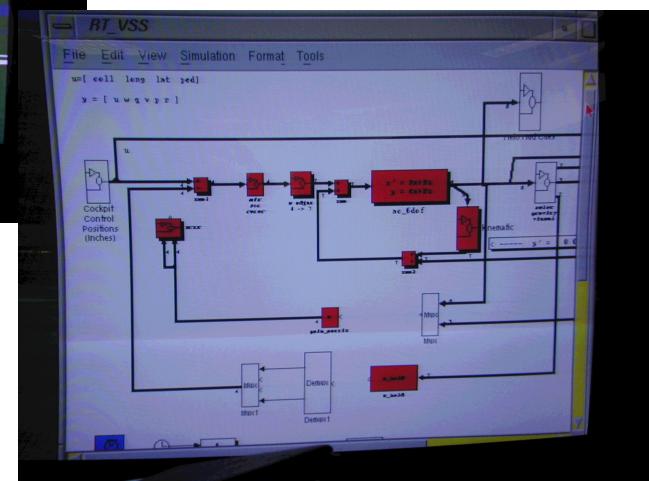
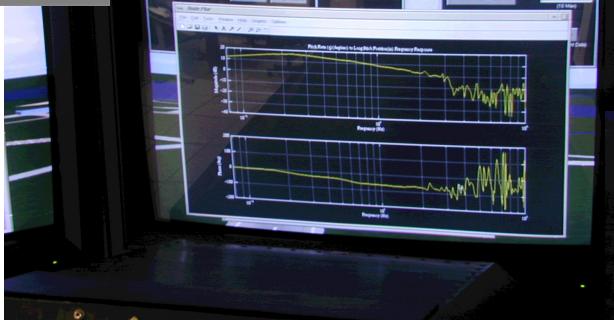


FQ SIMULATION-- FW/RW





Instant replay and parameter mod





Radar Simulation





Systems Laboratory



- **Basic EE**
- **EW**
- **FLIR**
- **Laser**
- **Optics**



USNTPS Aircraft



- 49 Aircraft
- 13 Different Types
 - USN
 - USA
 - USAF
 - Commercial



- Unique Aircraft Assets Representing the full Spectrum of Flying Qualities, Performance and Systems Integration



F-18B-- SYSTEMS “FLAGSHIP”





SYSTEMS “FLYING CLASSROOM” NP-3D



WF-360 FLIR

26



NP-3D STUDENT STATION





NP-3D INSTRUCTOR/ "OFF DUTY" STUDENT





NSH-60B VARIABLE STABILITY HELO





MD-369 (OH-6)





H-58





UH-60A





T-2





T-38



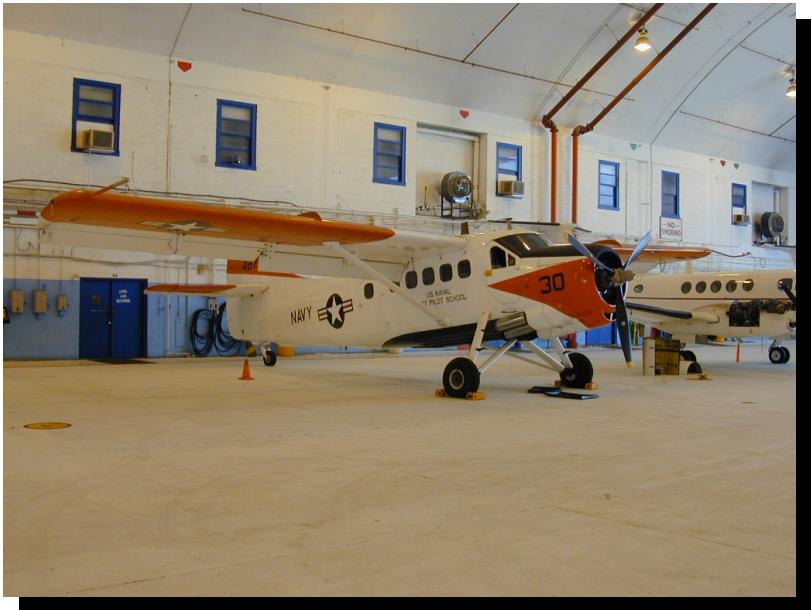


X-26 GLIDER





U-1/U-6





C-12





Other Aircraft



- RDT&E Test Squadrons
- CALSPAN
- Learjet VSS
- Flight Demonstrations
 - Military
 - Contract
 - International
 - DT-II Exercises
 - International partners
 - Other US services



VERIDIAN'S VARIABLE STABILITY LEARJET





Graduates - The Future of Aviation



- NASA
- Operational Commanders
- Acquisition Professionals



- Nuclear POWER PROGRAM
- NAVAIR/NAWC Leadership
- Aerospace Industry



Vision for the Future: Continued Improvement



- Continue to develop staff and their careers
- Sim--A/A, FLIR, SAR
- Systems “flying classroom”--eliminate single point failure
- Short course development
- Sustain aircraft fleet
 - T-38
 - H-60
 - RW VSS
 - FW VSS
- Civil testing initiatives